



In 1998, the Agency for Toxic Substances and Disease Registry (ATSDR) developed the Pediatric Environmental Health Specialty Unit (PEHSU) Program with the Association of Occupational and Environmental Clinics (AOEC). The program was developed as a national resource for pediatricians, other health care providers, federal staff, and the public to (1) reduce environmental health threats to children, (2) improve access to expertise in pediatric environmental medicine, and (3) strengthen public health prevention capacity. The key focus areas of the PEHSUs are medical education and training, telephone consultation, and clinical specialty referral for children who may have been exposed to environmental hazards. Eleven of these units are operating in the United States.

**Pediatric Environmental
Health Center
Children's Hospital
Boston, Massachusetts**

The center was established in 1998 as a regional center for pediatric environmental health. The center is a joint program of Children's Hospital in Boston; the Occupational and Environmental Health Program at Cambridge Hospital; Harvard Medical School; and the Occupational and Environmental Medicine Program, Harvard School of Public Health.

The Pediatric Environmental Health Center, located at Children's Hospital, offers multidisciplinary evaluation and management of children with known or suspected exposure to environmental toxicants. Staffed by pediatricians, medical toxicologists, nurses, and resource specialists, the center provides medical management for illnesses or intoxications resulting from heavy metals, indoor air pollutants, outdoor pollutants, and adolescent occupational exposures. The center also provides consultative services by telephone, publishes articles advancing the field of pediatric environmental medicine, and conducts educational activities for medical students, residents, and other health care providers. The teaching tool "Pediatric Environmental Health

History" is a case-based interactive slide show developed by the center, and it is available in CD-ROM format from AOEC.

Co-Directors of the Pediatric Environmental Health Center are Michael Shannon, MD, MPH; Rose Goldman, MD, MPH; and Alan Woolf, MD, MPH. Howard Hu, MD, MPH, ScD, is affiliated with the center.

Contact

Phone (toll-free): 1-888-Child14

Web site: www.childrenshospital.org

(in the "find" box, enter the key word "environmental")

**Mt. Sinai Pediatric
Environmental Health Unit
Mt. Sinai-Irving J. Selikoff Center
for Occupational and Environmental
Medicine
New York, New York**

The unit was established in 1998 as a regional center for pediatric environmental health, with support from ATSDR, the National Center for Environmental Health, and the American College of Preventive Medicine. It is a multidisciplinary program of research, education, clinical service, and community partnership.

The major purposes of the unit are to

- provide clinical services to children with diseases of toxic environmental origin and to children who have sustained toxic exposures in their environment. The clinical services provided by the unit are available on-site at the Mt. Sinai-Irving J. Selikoff Center for Environmental and Occupational Medicine.
- serve as a regional source of referral and consultation in environmental pediatrics.
- increase the knowledge of pediatricians about environmental threats to children's health. The unit sponsors special education opportunities such as grand rounds and seminar series, holds conferences such as "Environmental Influences on Children: Brain, Development, and Behavior," publishes articles, and trains pediatric environmental health fellows under the supervision of faculty of the Department of Pediatrics and the Department of Community and Preventive Medicine.

The principal investigator at the Mt. Sinai Pediatric Environmental Health Unit is Philip Landrigan, MD, MSc. Joel Forman, MD, and Spencer Carroll are also PEHSU staff.

Contact

Phone: 866-265-6201 (toll free) or 212-241-6173 (local)

Website: www.mssm.edu/cpm/peds_environ.shtml

The Southeast Pediatric Environmental Health Specialty Unit, Emory University Atlanta, Georgia

The Southeast Pediatric Environmental Health Specialty Unit was established in fall 1999 as a regional center for pediatric environmental health, with support from ATSDR, the U.S. Environmental Protection Agency (EPA), and AOEC. The unit links the Department of Environmental and Occupational Health in the Rollins School of

Public Health, the Department of Pediatrics in the School of Medicine, the Georgia Poison Center, the Marcus Institute, and a variety of Emory-affiliated clinical facilities, including Children's Health Care of Atlanta and the Hughes Spalding Children's Hospital.

The objectives of the unit are to

- develop a range of educational material on children's environmental health
- provide information and carry out health education activities for families, communities, and health care providers throughout the Southeast regarding environmental hazards and the most effective ways to protect children's health
- provide clinical consultation to agencies and health care providers in the region
- create an infrastructure for delivering pediatric environmental health care, including maintaining a database of conditions linked to environmental hazards and consulting with government agencies to address community environmental health concerns
- provide clinical pediatric environmental health services, including evaluation of children, referral of those needing treatment, and establishment of a network of expert clinicians.

The principal investigator for the Southeast Pediatric Environmental Health Specialty Unit is Howard Frumkin, MD, DrPH. Co-Investigators are Robert Geller, MD; Leslie Rubin, MD; and Gerald Teague, MD. Janice Nodvin is the Project Administrator.

Contact

Phone (toll-free): 1-877-33PEHSU
(1-877-337-3478)

Web site: www.sph.emory.edu/PEHSU/

Great Lakes Center for Children's Environmental Health, Cook County Hospital Chicago, Illinois

The Center for Children's Environmental Health was established in 1999 as a regional center for pediatric environmental health, with support from ATSDR, the EPA, and AOEC. The Center is a joint program of the Division of Occupational and Environmental Medicine and the Department of Pediatrics at Cook County Hospital. The center is affiliated with the Great Lakes Center for Occupational and Environmental Safety and Health at the University of Illinois and with Chicago's Toxikon Consortium. The center works closely with the Illinois Poison Control Center; local, state, and federal environmental and public health agencies; and local health care institutions.

The Center exists to

- evaluate, treat, and prevent environmental illnesses in children. The center has a multidisciplinary staff with experts in environmental medicine, pediatrics, clinical toxicology, and industrial hygiene. The clinic is open to children from infancy through adolescence.
- train pediatricians and other health care professionals in pediatric environmental health issues. The center offers a monthly lecture series at Cook County Hospital as well as continuing educational programs and workshops throughout EPA/ATSDR Region V. The center is also developing interactive, Web-based case presentations that can be accessed through the center's Web site.
- expand the knowledge of children's environmental health problems through research. The center's faculty includes clinical and public health scientists who conduct research on the most effective ways to diagnose, treat, and prevent children's environmental illnesses.

- promote children's environmental health in communities. The center is part of the Health Hazard Evaluation (HHE) Program, which investigates health hazards in communities through environmental monitoring, epidemiology, and clinical evaluations.

The Director of the Center for Children's Environmental Health is Daniel Hryhorczuk, MD, MPH, FACMT. The Associate Directors are Jay Mayefsky, MD, MPH and Carl Baum, MD, FAAP, ACMT.

Contact

Phone: 1-800-672-3113 (toll-free) or
312-633-5310

Web site: www.uic.edu/sph/glakes/kids
(includes the interactive case studies)

Pediatric Environmental Health Specialty Unit Harborview Medical Center Seattle, Washington

The Harborview Pediatric Environmental Health Specialty Unit was established in 1998 and serves as a regional center for pediatric environmental health, with support from ATSDR, the EPA, and AOEC. The unit was created by the University of Washington Occupational and Environmental Medicine Program, together with the Washington Poison Center and Children's Hospital and Regional Medical Center.

The unit's goal is to provide expertise about childhood environmental health risk to health care providers, educators, communities, and families. The unit's staff provide services in the areas of

- telephone consultation: Concerns regarding childhood environmental exposures can be discussed with experts via the Washington Poison Center. Callers' concerns have

included the consumption of well water contaminated with pesticides, a number of elemental mercury exposures, and solvent exposures from painting a child's bedroom. Poison center experts address some 2,000 such inquiries every month.

- clinical services: Providers specifically trained in both pediatrics and environmental medicine are available on a case-by-case basis to see children and their families. Clinic visits are available at Children's Hospital and Regional Medical Center.
- training: The unit provides training for health care providers as well as the public on childhood environmental health issues. Much of the training curriculum is based on results from an environmental health survey completed by school nurses, physicians, parents of children in Head Start Programs, Parent-Teacher Association (PTA) leaders, and others. Topics of greatest concern are air pollution, allergens, food-related hazards, and drinking water quality. To learn more about training opportunities, visit the unit's Web site.

The Director of Harborview Pediatric Environmental Health Specialty Unit is C. Andrew Brodtkin, MD, MPH. William O. Robertson, MD, is the Co-Director.

Contact

Phone: 1-(877)-KID-CHEM (toll-free west of the

Mississippi River) or 206-526-2121

Web site: www.depts.washington.edu/oemp/grants/PEHSU.html

University of California-San Francisco (UCSF)/ University of California-Irvine (UCI) Pediatric Environmental Health Specialty Unit

The University of California Pediatric Environmental Health Specialty Units were established in winter 2000 as regional centers for pediatric environmental health, with support from ATSDR, the EPA, and AOEC. As a joint collaborative project providing services in both the northern (UCSF) and southern (UCI) areas of the region, the units link the Occupational and Environmental Medicine Programs at the respective campuses with the UCSF-Mount Zion Hospital and UCSF-San Francisco General Hospital, California Poison Center, and the Departments of Pediatrics at UCSF and UCI.

The objectives for the units are to

- provide consultative services to health professionals, government agencies, and the California Poison Control System through an effective network of pediatric specialists in collaboration with the Occupational and Environmental Medicine Program at both sites
- conduct educational activities
- provide clinical and diagnostic services either on-site or through the Department of Pediatrics
- coordinate program evaluation activities for the units.

The principal investigator for the University of California Pediatric Environmental Health Specialty Units is John Balmes, MD. The co-principal investigator is Dean Baker, MD, MPH. Denise Souza, MSN C-NP, COHN-S is the project coordinator. Mary Koebler, RN COHN-S serves as the UCI liaison for the project components.

Contact

Phone: 415-206-4320 (for both sites)

**Southwest Center for Pediatric
Environmental Health
University of Texas
Health Center at Tyler
Tyler, Texas**

The Southwest Center for Pediatric Environmental Health began operation on September 1, 2000, as a collaboration between UTHCT's Occupational Medicine Program and the Departments of Pediatrics and Allergy. The center is supported by ATSDR, the EPA, and AOEC. In addition, the center has assembled a team that includes the Texas Poison Center Network and its North Texas Poison Center, the New Mexico Poison and Drug Information Center, and the Program of Occupational and Environmental Health at the University of New Mexico.

The specific aims for the SW-CPEH are to

- develop materials and present training to health professionals and public health officials on environmental health issues and their impact on children's health
- answer requests for information about pediatric environmental health and risk communication from health care professionals, public health agencies, and concerned parents
- provide clinical consultation services for patients and their health care providers.

Co-principal investigators for the Southwest Center for Pediatric Environmental Health are Jeffrey Levin, MD, MSPH, and Larry K. Lowry, PhD.

Contact

Phone (toll-free): 1-888-901-5665

Web site: research.uthct.edu/swcpeh/

**Mid-Atlantic Center for Children's
Health and the Environment
George Washington University
Washington, DC**

The Mid-Atlantic Center for Children's Health and the Environment started operations in October 2000. It is supported by ATSDR, the EPA, and AOEC. The unit is a project of the George Washington University Medical Center (GWUMC) and the Children's National Medical Center, and includes collaboration between the GWUMC Division of Occupational Medicine and Toxicology and the Department of Pediatrics. In addition, the unit has assembled a team that includes the Howard University College of Nursing and faculty from the University of Maryland School of Medicine and the Medical College of Pennsylvania.

The goals of the unit are to

- increase the cooperation and exchange of information between pediatricians and occupational and environmental health professionals
- conduct educational activities that will assist both health professionals and communities in addressing environmental risks to children
- improve the recognition, evaluation, and management of environmental health problems in children
- develop new knowledge about communications among clinicians, parents, and patients about environmental health issues
- reduce the environmental health disparities among children in EPA/ATSDR Region III.

Co-principal investigators for the Mid-Atlantic Center for Children's Health and the Environment are John Balbus, MD, MPH, Jerome Paulson, MD, and Benjamin Gitterman, MD, MPH.

Contact

Phone (toll-free): 1-866-MACCHE1 (1-866-622-2431)

Web site: www.health-e-kids.org

Rocky Mountain Regional Pediatric Environmental Health Specialty Unit National Jewish Medical and Research Center Denver, Colorado

The Rocky Mountain Regional Pediatric Environmental Health Specialty Unit started operations in June 2001, with support by ATSDR and AOEC. The unit is a project of National Jewish Medical and Research Center and the University of Colorado Health Sciences Center, in collaboration with the Denver Health and Hospitals Authority and the Rocky Mountain Poison and Drug Center. The unit serves the states of Colorado, Utah, Montana, Wyoming, North Dakota, and South Dakota.

The goals of the unit are to

- develop environmental medicine materials
- conduct health education activities
- target risk communication strategies, particularly related to asthma
- increase the development of regional pediatric environmental health infrastructure
- build the capacity of existing medical resources.

Co-principal investigators of the Rocky Mountain Regional Pediatric Environmental Health Specialty Unit are Cecile Rose, MD, MPH, and Mark Anderson, MD, with assistance from Richard Dart, MD, PhD, Greg Bogdan, PhD, and Andy Liu, MD.

Contact

Phone (toll-free): 1-877-800-5554

Midwest Regional Pediatric Environmental Health Center University of Iowa Iowa City, Iowa

The Midwest Regional Pediatric Environmental Health Center started operations in April 2001, with support by ATSDR, the EPA, and AOEC. The center is a joint project of University of Iowa HealthCare and the Children's Hospital of Iowa.

The goal of the center is to provide information and outreach about pediatric, public health, and environmental health issues to health care providers, as well as educators, communities, and families in Iowa, Missouri, Kansas, and Nebraska.. The center can be contacted with questions on a variety of environmental exposures, including indoor and outdoor air pollution, heavy metals, food additives, and adolescent occupational exposures.

The Director of the Midwest Regional Pediatric Environmental Health Center is Joel Kline, MD. Richard Ahrens, MD; Elizabeth Chrischilles, PhD; Laurence Fuortes, MD; Douglas Weisman, MD; and Sandra Reed, RN, are also center staff members.

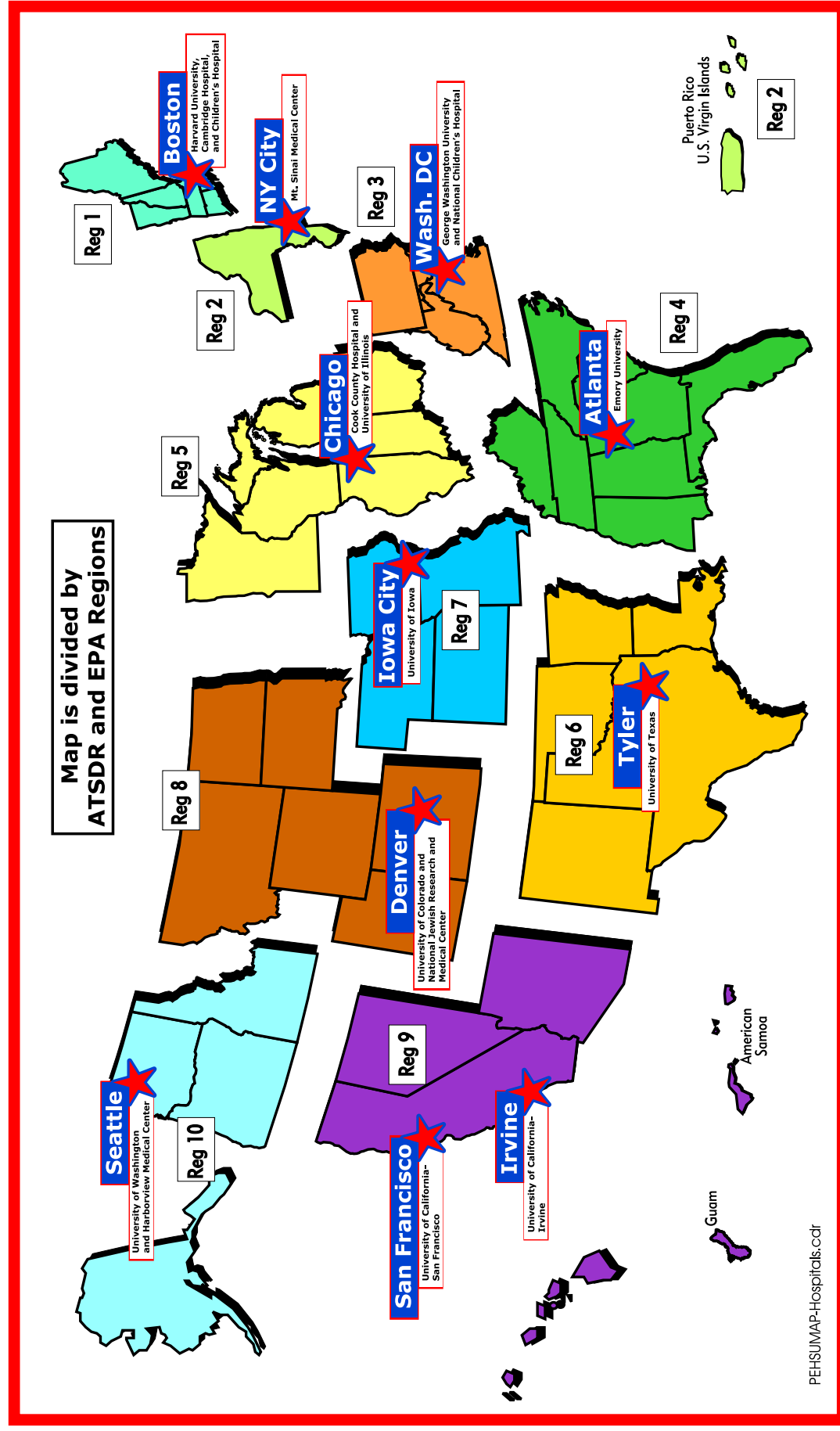
Contact

Phone (toll-free): 1-866-697-7342 (for assistance in Iowa, Missouri, Kansas, and Nebraska)

Web site: www.uihealthcare.com/deptspediatricenvironmentalhealth/index.html

For additional information on the PEHSU Program, call Katherine Kirkland, MPH, Executive Director, AOEC (202-347-4976) or Christine Rosheim, DDS, MPH, Project Officer, ATSDR (404-498-0323).

Pediatric Environmental Health Specialty Units



ATSDR

AGENCY FOR TOXIC SUBSTANCES
AND DISEASE REGISTRY